

Specially designed breaker geometry gives excellent chip control!

- Unique R-shaped chip breaker matching the nose radius provides superior chip control and increases machining productivity.
- MBC020, coated CBN for prolonged tool life.



For Turning

CBN BREAKER INSERT

Features

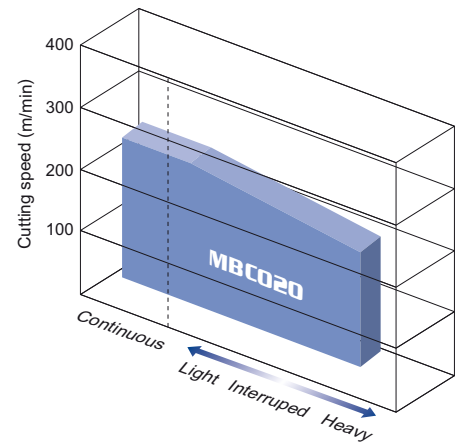
Chip breaker geometry designed for excellent chip control

R-shaped chip breaker ensures optimization of the cutting point and the chip breaker position. Enables effective chip discharge even when copying and prevents the chips from wrapping around the holder when finish turning.

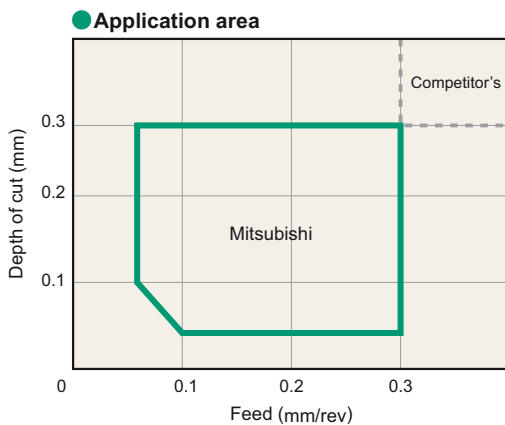


Long life coated CBN grade

The coated grade MBC020 made with MIRACLE coating technology exhibits high cutting performance and longer tool life over a wider range of machining applications from continuous cutting through to medium interrupted cutting.



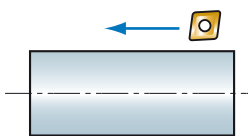
Breaker application area and recommended cutting conditions



Grade	Cutting speed (m/min)			Coolant
	100	200	300	
MBC020				Dry Wet

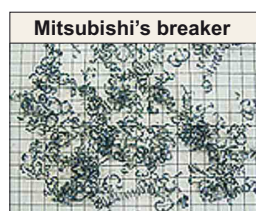
Cutting performance

External cutting

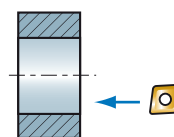


<Cutting conditions>

Workpiece : Alloy steel (55HRC)
 Insert : BF-CNGG120408TA4
 Cutting speed : 100m/min
 Feed : 0.2mm/rev
 Depth of cut : 0.1mm
 Dry

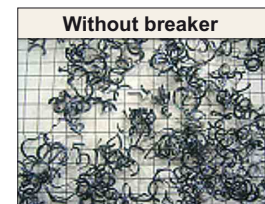



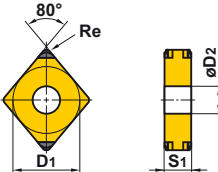

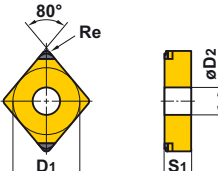

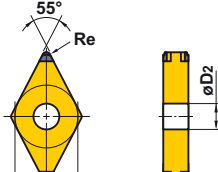

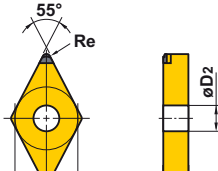

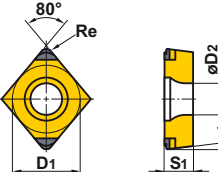

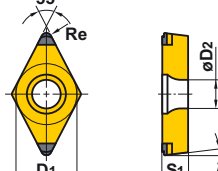
Internal cutting



<Cutting conditions>

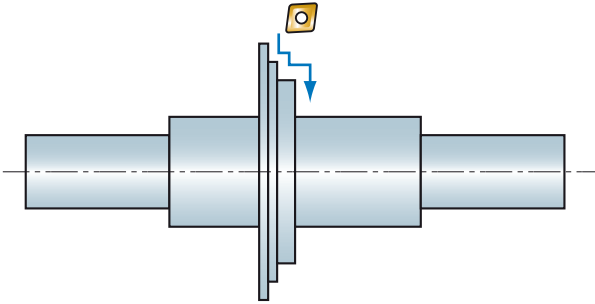
Workpiece : Alloy steel (60HRC)
 Insert : BF-CCGT09T308TA2
 Cutting speed : 120m/min
 Feed : 0.2mm/rev
 Depth of cut : 0.3mm
 Dry



Shape	Order Number	Coated CBN	Dimensions (mm)				Geometry
		MBC020	D1	S1	Re	D2	
 NEW PETIT CUT Multi-corner Type Double Sided	BF-CNGG120404TA4	★	12.7	4.76	0.4	5.16	
	120408TA4	★	12.7	4.76	0.8	5.16	
	120412TA4	★	12.7	4.76	1.2	5.16	
 NEW PETIT CUT Multi-corner Type Single Sided	BF-CNGM120404TA2	●	12.7	4.76	0.4	5.16	
	120408TA2	●	12.7	4.76	0.8	5.16	
	120412TA2	●	12.7	4.76	1.2	5.16	
 NEW PETIT CUT Multi-corner Type Double Sided	BF-DNGG150404TA4	★	12.7	4.76	0.4	5.16	
	150408TA4	★	12.7	4.76	0.8	5.16	
	150412TA4	★	12.7	4.76	1.2	5.16	
 NEW PETIT CUT Multi-corner Type Single Sided	BF-DNGM150404TA2	★	12.7	4.76	0.4	5.16	
	150408TA2	★	12.7	4.76	0.8	5.16	
	150412TA2	★	12.7	4.76	1.2	5.16	
	150604TA2	●	12.7	6.35	0.4	5.16	
	150608TA2	●	12.7	6.35	0.8	5.16	
 NEW PETIT CUT Multi-corner Type Single Sided	BF-CCGT09T304TA2	●	9.525	3.97	0.4	4.4	
	09T308TA2	●	9.525	3.97	0.8	4.4	
 NEW PETIT CUT Multi-corner Type Single Sided	BF-DCGT11T304TA2	●	9.525	3.97	0.4	4.4	
	11T308TA2	●	9.525	3.97	0.8	4.4	

CBN BREAKER INSERT

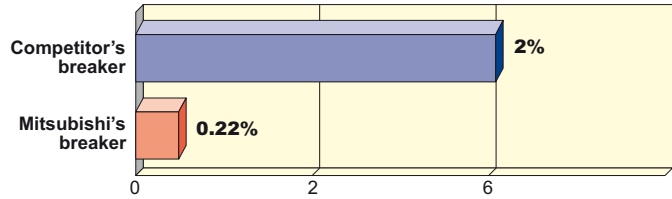
Application example



<Cutting conditions>

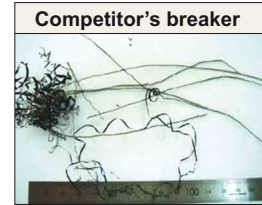
Workpiece : Alloy steel (60HRC)
 Insert : BF-CNGM120404TA2
 Cutting speed : 120m/min
 Feed : 0.08mm/rev
 Depth of cut : 0.1—0.15mm
 Wet
 No. of workpieces per corner : 450

Chip wrapping



*Percentage of 450 components where chip wrapping occurred.

Chip geometry



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